

*accidental varieties*, various circumstances tend in a wild state to restrict the number of individuals, or cause the varieties to disappear altogether, whilst they may be rendered permanent by cultivation.

In our opinion, therefore, all that M. Godron has proved is, that *Triticum sativum* and *Ægilops ovata* are species so nearly allied, that they hybridize with a facility very unusual amongst grasses; but we assert, that this is no proof that the two plants are distinct species.

To this we would add, that neither M. Godron nor M. Alexis Jordan, who has filled 100 pages of the Memoirs of the Academy of Sciences of Lyons with speculations upon the origin of domesticated plants, have attempted to explain what the origin of wheat has been, if it is not a domesticated condition of *Ægilops*, as M. Fabre's experiments, in our opinion, prove it to be.—*From the Gardeners' Chronicle for March 10, 1855.*

*Mr. Busk's Anomalous Shell.* By Prof. J. S. HENSLow.

*To the Editors of the Annals of Natural History.*

Hitcham, Suffolk, April 17, 1855.

GENTLEMEN,—I had not seen Dr. Gray's explanation of Mr. Busk's anomalous Oyster-shell till after I had forwarded my notice of the fossil in the Ipswich Museum, which I considered likely to offer a solution of the mystery. I have since been favoured by Mr. Busk with an oyster-shell attached in the way described by Dr. Gray, and I am quite disposed to admit that gentleman's explanation to be the correct one. Dr. Gray has also written to me to say he "described in the 'Philosophical Transactions' for 1833 the fact, that the peculiarities on the surface of a body to which a shell is attached are sometimes shown on the surface of the upper or free valve." The Ipswich specimen is therefore only an additional illustration of a fact long since noticed by my distinguished friend.

Yours faithfully,

J. S. HENSLow.

*On the Fructification of the Arachis hypogæa.*

By HUGH M. NEISLER, Columbus, Geo.

In studying our *Stylosanthes* a few years ago, my attention was attracted by a note in Torrey and Gray's Flora of North America, vol. i. p. 354, viz., "Mr. Bentham, in a paper on the affinities of *Arachis*, read before the Linnæan Society in 1838, gives an account of the two kinds of flowers in *Stylosanthes*, and shows its affinity to *Arachis*, which he considers a genuine *Hedysarea*." I presumed that he supposed the *Arachis* to have two kinds of flowers, but, wishing to inform myself accurately as to his views, I mentioned the subject to Dr. Torrey in the course of our correspondence, who remarked in reply: "Mr. Bentham says, that *Arachis* has two kinds of flowers. Those that have all the parts do not perfect their fruit;

the ovary never ripens. The fructiferous flowers have neither calyx, corolla, nor stamens, but consist at first of a minute ovary on a rigid stipe that arises from between two bracteoles. After fecundation, the minute ovary swells, and at the same time burrows in the ground, where it ripens."

On examination, I found in some specimens that had been in flower some days, in the axils of two or three of the lower leaves, minute, sessile (sometimes two or three in a kind of one-sided raceme), conical germs situated between two bracteoles; these gradually elongated themselves, until, reaching the earth, they penetrated beyond the reach of light, where their extremities becoming etiolated they grew succulent, enlarged, and ripened their fruit. The stipe of the fruit varies much in length; in the prostrate forms of the plant from 1 to 3 or 4 inches; but in an upright variety which I cultivate, they grow 6, 12, and sometimes even 18 inches before reaching the earth, and in their growth hang around the stem like aerial rootlets. In the axils next above these fertile germs, in my specimens, I found petal-bearing flowers, which I at first (supposing Mr. Bentham's views of course to be correct) regarded as barren. But after close and repeated examinations, to my surprise I found them in all respects perfect, and what at first sight I had thought a long peduncle which withered with the flower, proved to be a slender, tubular *calyx*, through which there was no difficulty in tracing the style to a minute conical germ, situated between two bracteoles, and in all respects identical with those in the axils below; and after examining a few plants, I succeeded in finding germs elongated to two or three inches, with the marcescent calyx and corolla still *adhering to their points*, and stimulated into growth beyond a doubt by the perfect and fertilized ova. Younger plants just getting into bloom showed petal-bearing flowers in the lowest axils; and doubtless those that I first examined, and which I thought achlamydeous, would have been found so, if seen a little earlier; for, generally, the flower falls away entirely, and is seldom found attached to the germ after withering. *The flowers of the Arachis hypogæa are all petal-bearing and all fertile.* The plant is in some respects a singular one, and I am not surprised that Mr. Bentham, or any one else who had not watched it in all stages of its growth, should have fallen into error as regards its fructification.—*Silliman's Journal for March 1855.*

*On the Structure of the Starch Granule.* By Mr. GRUNDY.

The structure of the starch granule being by no means clearly understood, I am induced to submit the results of a few observations on the subject, with the view, if possible, of adding a little to our knowledge of its structure. There are, as is well known, two views of its constitution; one, especially advocated by Schleiden, considers it as increasing by means of layers deposited from within outwards, and that there is no membrane enveloping the granule; secondly, the view of Nägeli and others that it is a true cell, consisting of a wall